

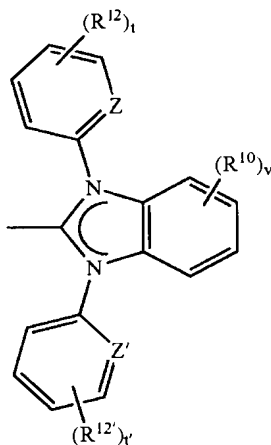
REMARKS/ARGUMENTS

The amendment to Claim 19 is supported by formulae (a) and (c) in Claim 26. Claims 26 and new Claim 42 individually specify one of these formulae. The amendment to Claim 27 is supported by formula (c) in Claim 30, now cancelled. Claim 34 has been amended to incorporate the transition metal complexes of amended Claim 19. The other amendments are formal in nature and/or are supported by the claims as originally filed. No new matter has been entered.

Applicants repeat their traversal of the Restriction Requirement. However, the Examiner is thanked for expanding the search so as to include formulae (a) and (c) as now presented in Claim 19. Applicants reserve the right to file appropriate divisional applications.

The anticipation rejections of Claims 27-32 over Hitchcock is traversed.

Claims 27 has been amended such that the carbene ligands must be selected from the following general formula:

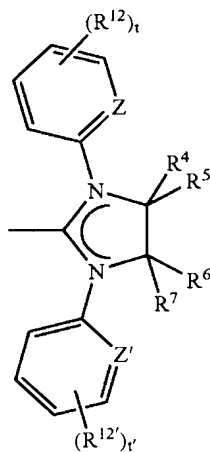


As noted by the Examiner at the top of page 4 of the outstanding Official Action, this structure is neither disclosed nor suggested by the reference. Withdrawal of the rejection is requested.

The rejection of Claims 19-21 and 23-41 for obviousness over Hitchcock in view of Thompson is traversed.

First, Applicants note newly amended Claim 26, requiring the presence of the same carbene formula as now specified in Claim 27, which is neither disclosed nor suggested by Hitchcock or Thompson.

With regard to formula (a) in present Claim 19:



Applicants note, and the Examiner has acknowledged, that the compounds disclosed in Hitchcock are not disclosed for use in an OLED, or in any type of light-emitting layer. Such guidance allegedly comes from Thompson, which uses iridium compounds different from those in Hitchcock as phosphorescent emitters in OLEDs.

Importantly, however, the organometallic phosphorescent compounds of Thompson are *not* carbene complexes, as claimed and as described in Hitchcock. In addition, and as specifically described in paragraph [0250] of Thompson, ligand choice in Ir complexes plays a critical role in determining emission:

The wrong choice of X ligand can also severally (sic) quench the emission from L_2IrX complexes. Both hexafluoro-acac and diphenyl-acac complexes give either very weak emission or no emission at all when used as the X ligand in L_2IrX complexes. The reasons why these ligands quench emission so strong are not at all clear, one of these ligands is more electron withdrawing than acac and the other more electron donating. We give the spectrum for BQIrFA in the Figures. The emission spectrum for this complex is slightly shifted from BQIr, as expected for the much stronger electron withdrawing nature of the hexafluoroacac ligand. The emission intensity from BQIrFA is at least 2 orders of magnitude weaker than BQIr. We have not explored the complexes of these ligands due to this severe quenching problem.

Clearly, there is no guidance or disclosure provided in Thompson that would lead one of ordinary skill in the art to expect that the very different carbene complexes of Hitchcock could or would be useful in an OLED or light-emitting layer, as claimed.

To the extent that the Examiner has taken an "obvious to try" approach in rejecting the present claims, Applicants note that in *KSR* the Supreme Court indicated that that an invention *may* be obvious *if* 1) it would have been obvious to a person having ordinary skill to try a course of conduct to solve a problem *and* 2) there are a finite number of identified, predictable solutions.¹ Recently, the Federal Circuit, in *Bayer Schering Pharma AG v. Barr Laboratories Inc.*, 91 USPQ2d 1569 (Fed. Cir. 2009), recognized that most inventions that are obvious were also obvious to try, but found two classes where that rule of thumb did not obtain:

¹ *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

First, an invention would not have been obvious to try when the inventor would have had to try all possibilities in a field unreduced by direction of the prior art. When “what would have been ‘obvious to try’ would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful” an invention would not have been obvious. This is another way to express the *KSR* prong requiring the field of search to be among a “finite number of identified” solutions.

Second, an invention is not obvious to try where vague prior art does not guide an inventor toward a particular solution. A finding of obviousness would not obtain where “what was ‘obvious to try’ was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it.” This expresses the same idea as the *KSR* requirement that the identified solutions be “predictable.”

Bayer Schering Pharma AG 91 USPQ2d at 1573 (citations omitted).

In the present case, Hitchcock is the epitome of “vague prior art [that] does not guide an inventor toward a particular solution” as it nowhere suggests use of the disclosed compounds *for anything*. Thompson, for its part, in no way limits the parameters or choices one of ordinary skill in the art faces in choosing compounds for use in, e.g., OLEDs, nor does the reference provide any useful guidance leading one of ordinary skill to the compounds of the present claims. In this regard, the fact that Thompson indicates that compounds completely different from those described in Hitchcock can be used in OLEDs is not helpful, because it does not reduce the numerous possible choices faced by those skilled in the art, and if it does, it reduces the choices to compounds other than those presently claimed. Thus, the disclosure in Hitchcock, even when taken with Thompson, squarely falls within the

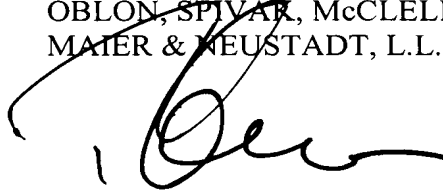
Application No. 10/568,344
Reply to Office Action of June 25, 2009

exceptions noted above given the absolute lack of a finite number of identified, predictable solutions available to one of ordinary skill in the art interested in preparing OLEDs or light emitting layers.

Accordingly, and in view of the above amendments and remarks, Applicants respectfully request the reconsideration and withdrawal of the outstanding rejection, and the passage of this case to Issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.



Richard L. Treanor
Attorney of Record
Registration No. 36,379

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 07/09)